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09/902,185	07/10/2001	Yasser alSafadi	US010318	7534

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EXAMINER	
USTARIS, JOSEPH G	
ART UNIT	**PAPER NUMBER**
2623	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/902,185	ALSAFADI ET AL.	
	Examiner	Art Unit	
	Joseph G. Ustaris	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-7 and 9-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7 and 9-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment dated December 26, 2006 in application 09/902,185.

The objection to claim 1 is now withdrawn in view of the amendments.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.
>
> When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).
>
> In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit ***the computer program's functionality to be realized***, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim(s) 19 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 19 defines a computer program embodying functional descriptive material. However, the claim does not clearly define "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits ***the function of the descriptive material to be realized***" (Guidelines Annex IV). That is, the scope of the presently claimed computer program "when executed" cannot be fully realized. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-7, 9-14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman et al. (US006243707B1) in view of Fontana et al. (US006167564A) and Knowles et al. (US006505348B1).

Regarding claim 1, Humpleman et al. (Humpleman) discloses a method where a home HTML/XML network program guide is produced from an original generic EPG or other various sources or "content-related information" (See column 4 lines 16-33, column 22 lines 57-60, and column 23 lines 18-29). The home HTML/XML network

program guide is built based on a standard program format incorporating HTML or XML standards or "reference information model", where information from the original generic EPG or other various sources is extracted and converted or "configuring" into the HTML/XML standard program format. Thus the end result of the process is a HTML/XML network program guide (See column 22 line 66 – column 23 line 5). Furthermore, "reference information model defines a set of requirements" (e.g. the HTML/XML network program guide requires the information to be EPG information and to be in a standard program format) (See column 22 line 66 – column 23 line 5) and when the "content-related information satisfies the set of requirements" (e.g. when the original generic EPG or other various sources contain EPG information and is in a standard program format) then it is configured into the HTML/XML network program guide (See column 22 line 66 – column 23 line 17). The devices on the network have a session manager or "electronic program guide" program that is able to "process" the HTML/XML network program guide and display it to the user (See Fig. 10, programming; column 9 lines 35-52, column 17 lines 35-45, and column 18 lines 61-67). The HTML/XML network program guide can be processed by a session manager on a DTV or "electronic program guide of the first type" or by a session manager on a PC or "second electronic program guide of a second type different than the first type" (See column 6 lines 1-13 and column 23 lines 2-11). Furthermore, the HTML/XML network program guide is "selectively extractable in accordance with the specified semantic and syntactic consensus", wherein the electronic program guide selectively extracts only the information that the user wants and displays the information following/agreeing with the

meaning and syntax of the HTML/XML codes (See column 22 lines 60-65 and column 23 lines 9-11). However, Humpleman does not disclose (1) configuring the reference information object model in accordance with a unified modeling language format and (2) the reference information object model comprising a plurality of directly or indirectly interrelated classes having at least one specified property.

(1) Humpleman discloses that the HTML/XML network program guide can be developed using XML codes (See column 4 lines 16-33). Fontana et al. (Fontana) discloses various development tools used to develop various interfaces. Fontana utilizes the UML format when communicating/developing with client or "configuring in accordance with a unified modeling language format". Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system disclosed by Humpleman to configure the reference information object model in accordance with a unified modeling language format, as taught by Fontana, in order to be in accordance with a well known and industry-standardized modeling language thereby ensuring greater compatibility and offering the capability of using object oriented programming.

(2) Knowles et al. (Knowles) discloses an interactive electronic program guide system. Knowles discloses that the IPGs can be customized, wherein the format of the IPG can be changed. The IPG contains information on pay-per-view (PPV) and different Themes of programming or "plurality of directly or indirectly interrelated classes having at least one specified property" (See Fig. 9). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system

disclosed by Humpleman to provide "plurality of directly or indirectly interrelated classes having at least one specified property", as taught by Knowles, in order to expand the capabilities of the HTML/XML network program guide by providing different types of information to the users.

Regarding claim 4, the PPV and Theme gives a list of times or "attributes" for the programs available (See Knowles Fig. 10 and column 5 lines 61-63).

Regarding claim 5, based on the guide customizations discussed in claims 1 and 4, the format of the IPG can provide additional information or "plurality of elements" such as movies or "classes" and a list of episodes or "enumeration elements". Furthermore, the list of episodes or "enumeration elements" is associated with the movies or "classes", while the movies are also "associated" with other types of programs such as sports or "plurality of classes" (See Knowles Fig. 9 and Fig. 10).

Claim 6 contains the limitations of claim 5 (wherein the movies provide different programs or "program class element" or a list of movies or "remaining class elements", (See Knowles Fig. 10)) and is analyzed as previously discussed with respect to that claim.

Regarding claim 7, the IPG disclosed by Knowles further presents the Themes or "classes" as objects that can be seen from a screen, wherein some of the objects are listed or "oriented" in alphabetic order. Furthermore, the Themes or "classes" contain additional information such as channel numbers or "attributes". The whole screen of the IPG contains different information elements or "structures" that enable the user to browse efficiently (See Knowles Fig. 10).

Regarding claim 9, the IPGs each could have their own configuration based on the guide customizations or "reference information model" thus producing different layouts or "schema" for each IPG (See Knowles column 7 lines 34-45), with the information being retrieved from the original generic EPG or "content-related information" as discussed in claim 1.

Claim 10 contains the limitations of claim 9 (wherein the IPGs or HTML/XML network program guides could have their own different layouts or "plurality of different schema" and be read or "processed" by the PC or DTV as discussed in claim 1) and is analyzed as previously discussed with respect to that claim.

Regarding claim 11 and 12, the HTML/XML network program guide is updated (thus producing a "subsequent version") based on the newly updated original generic EPG or "second set of data specifications". This process is an "iterative process" wherein the process, which performs the same steps each time to update the HTML network program guide, is repeated periodically (See Humpleman column 23 lines 7-11).

Regarding claim 13, the HTML/XML network program guide receives its information from a original generic EPG or "content-related information", where the original format of the original generic EPG is not complaint to the HTML standard program format or "reference information model", therefore the generic EPG is converted or "transformed" into a HTML standard program format (See Humpleman column 22 line 66 – column 23 line 5).

Regarding claim 14, the original generic EPG is dependent on the DBSS and will inherently be read by the EPG program of the DSS-NIU or "electronic program guide of a type not based on the reference information model". Alternatively, the original generic EPG is converted into the HTML/XML standard program format or "second format" to produce a HTML/XML network program guide to be read by the session managers or "electronic program guide of the first type" on the network (See Humpleman Fig. 1; column 22 line 66 – column 23 line 17).

Claim 19 contains the limitations of claim 1 (where inherently system is operated by executing "one or more software programs stored on a machine-readable storage medium") and is analyzed as previously discussed with respect to those claims.

Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman et al. (US006243707B1) in view of Fontana et al. (US006167564A) and Knowles et al. (US006505348B1) as applied to claims 1, 4-7, 9-14, and 19 above, and further in view of Kido (US 20020073081A1).

Regarding claim 3, Humpleman in view of Fontana and Knowles does not disclose a method where the generic EPG or "content-related information" is in an extensible mark-up language (XML).

Kido discloses a method where an EPG is generated and distributed to the client (See Fig. 8). The generated EPG or original generic EPG or "content-related information" is produced using HTML or XML (See paragraph 0138). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was

made to modify the original generic EPG disclosed by Humpleman in view of Fontana and Knowles to be in an extensible mark-up language, as taught by Kido, so that the original generic EPG would be in accordance with a well known and established language thereby ensuring greater compatibility between the devices.

Regarding claim 15, the process of generating an EPG using XML, as taught by Kido, may be also applied in the conversion or "transforming" step discussed in claim 13 in order to continue the use of a well known and established language, thereby further ensuring greater compatibility.

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman et al. (US006243707B1) in view of Fontana et al. and Kido (US 20020073081A1).

Regarding claim 16, Humpleman et al. (Humpleman) discloses a method where a home HTML/XML network program guide is produced from an original generic EPG or other various sources or "content-related information" (See column 4 lines 16-33, column 22 lines 57-60, and column 23 lines 18-29). The home HTML/XML network program guide is built based on a standard program format incorporating HTML or XML standards or "reference information model", where information from the original generic EPG or other various sources is extracted and converted or "configuring" into the HTML/XML standard program format. Thus the end result of the process is a HTML/XML network program guide (See column 22 line 66 – column 23 line 5). Furthermore, "reference information model defines a set of requirements" (e.g. the

HTML/XML network program guide requires the information to be EPG information and to be in a standard program format) (See column 22 line 66 – column 23 line 5) and when the "content-related information satisfies the set of requirements" (e.g. when the original generic EPG or other various sources contain EPG information and is in a standard program format) then it is configured into the HTML/XML network program guide (See column 22 line 66 – column 23 line 17). The devices on the network have a session manager or "electronic program guide" program that is able to "process" the HTML/XML network program guide and display it to the user (See Fig. 10, programming; column 9 lines 35-52, column 17 lines 35-45, and column 18 lines 61-67). The HTML/XML network program guide can be processed by a session manager on a DTV or "electronic program guide of the first type" or by a session manager on a PC or "second electronic program guide of a second type different than the first type" (See column 6 lines 1-13 and column 23 lines 2-11). The HTML/XML network program guide is "selectively extractable in accordance with the specified semantic and syntactic consensus", wherein the electronic program guide selectively extracts only the information that the user wants and displays the information following/agreeing with the meaning and syntax of the HTML/XML codes (See column 22 lines 60-65 and column 23 lines 9-11). Furthermore, the home device or "processing device" produces a HTML/XML network program guide or "corresponding output" that is sent to a client, e.g. a PC or Digital Television (DTV) or "devices associated with respective electronic program and second electronic program guides" (See Humpleman Fig 1. element 102 and 104). However, Humpleman does not disclose (1) configuring the reference

information object model in accordance with a unified modeling language format and (2) where the generic EPG or "content-related information" is in an extensible mark-up language (XML).

(1) Humpleman discloses that the HTML/XML network program guide can be developed using XML codes (See column 4 lines 16-33). Fontana et al. (Fontana) discloses various development tools used to develop various interfaces. Fontana utilizes the UML format when communicating/developing with client or "configuring in accordance with a unified modeling language format". Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system disclosed by Humpleman to configure the reference information object model in accordance with a unified modeling language format, as taught by Fontana, in order to be in accordance with a well known and industry-standardized modeling language thereby ensuring greater compatibility and offering the capability of using object oriented programming.

(2) Kido discloses a method where an EPG is generated and distributed to the client (See Fig. 8). The generated EPG or original generic EPG or "content-related information" is produced using HTML or XML (See paragraph 0138). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the original generic EPG disclosed by Humpleman in view of Fontana and Knowles to be in an extensible mark-up language, as taught by Kido, so that the original generic EPG would be in accordance with a well known and established language thereby ensuring greater compatibility between the devices.

Claim 17 contains the limitations of claim 16 and is analyzed as previously discussed with respect to that claim. Furthermore, Humpleman discloses that the method discussed in claim 16 can be embodied as a satellite receiving terminal labeled as DSS-NIU or "processor apparatus" (See Humpleman Fig. 1 element 104). In addition, the DSS-NIU or home device can maintain its own respective program guide; therefore inherently the DSS-NIU or home device has a "memory" associated with it (See Humpleman column 23 lines 41-49).

Claim 18 contains the limitations of claim 16 and is analyzed as previously discussed with respect to that claim. Furthermore, Humpleman also discloses that the method discussed in claim 16 can be received or "implement" by a Digital TV, personal computer (PC) or client or "processor apparatus" (See Humpleman Fig. 1 element 102; column 23 lines 5-8). In addition, it is known that a PC inherently utilizes some type of "memory".

Response to Arguments

4. Applicant's arguments filed December 26, 2006 have been fully considered but they are not persuasive.

The rejection of claim 19 under 35 U.S.C. 101 is maintained because the language of the claim does not clearly define a structural and functional interrelationship between the computer program and the rest of the computer which permit ***the computer program's functionality to be realized***, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. It is highly recommended that the applicant

consider replacing: machine-readable with computer-readable, containing with storing or encoded with, and when executed with executed.

Applicant argues with respect to claims 1, 3-7, and 9-19 that Humpleman does not disclose a reference information object model defining a set of requirements and configuring the content-related information when the content-related information satisfies the set of requirements. However, reading the claims in the broadest sense, Humpleman does meet the limitations of the claims. Humpleman discloses a HTML/XML network program guide that defines a set of requirements (e.g. the content-related information is to be EPG information and to be in a standard program format) (See column 22 line 66 – column 23 line 5). When the content-related information satisfies the set of requirements (e.g. when the original generic EPG or other various sources contain EPG information and is in a standard program format) then the content-related information is configured into the HTML/XML network program guide (See column 22 line 66 – column 23 line 17).

Applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph G. Ustaris whose telephone number is 571-272-7383. The examiner can normally be reached on M-F 7:30-5PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JGU
March 9, 2007

SCOTT E. BELIVEAU
PRIMARY PATENT EXAMINER